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Attachment No. 2

**INITIAL STATEMENT OF REASONS****CALIFORNIA CODE OF REGULATIONS**

**TITLE 8: Division 1, Chapter 4, Subchapter 7, Article 25, Section 3657  
of the General Industry Safety Orders**

**Elevating Employees with Lift Trucks****SUMMARY**

This rulemaking proposal was initiated in response to a Division of Occupational Safety and Health (Division) Form 9 request for change in existing safety order. Existing Section 3657 addresses the hazard of elevating employees using conventional forklift trucks with vertical masts on level surfaces in industrial facilities such as warehouses and manufacturing plants. The existing standard does not adequately address the increased use of variable reach (boom type) rough-terrain forklift trucks for elevating employees on construction sites. A variable reach boom presents a significant tip-over hazard if the lift truck is not on level terrain or the load is too heavy or too far outside of the center of gravity of the lift truck. Also, sudden movement of the boom can cause an employee to fall from the work platform. To address this hazard, existing standards governing boom-type aerial devices, which are similar to boom-type forklifts, require the use of fall protection.

**SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION****Subsection (a), Scope and application**

Existing subsection (a) would be renumbered as subsection (b). Proposed subsection (a) would identify those subsections of the standard that apply to all types of lift trucks and those subsections that apply only to variable reach lift trucks. This provision is necessary to instruct the reader on the application of each provision of the standard with respect to variable reach lift trucks and other types of lift trucks. To alert the reader to additional requirements in other standards that pertain to the use of lift trucks, the proposal would reference three General Industry Safety Order (GISO) standards.

**Subsection (b)**

The existing text of renumbered subsection (b) prohibits elevating employees unless the conditions in the following subsections (1) through (6) are met. Subsections (1) through (5) pertain to the work platform, and subsection (6) pertains to the lift truck itself. The proposal would retain the numbering of the first five subsections but would renumber subsection (6) as subsection (c). Proposed

subsection (b) would be amended for clarity and to limit its scope of application to work platforms. These editorial changes are necessary for the logical organization of this standard. The text of existing subsection (b) would be incorporated into the exemption from proposed subsection (b)(3), and existing subsection (b) would be deleted. (See the discussion under subsection (b)(3) for the necessity of this amendment.)

#### Subsection (b)(1)

The existing text specifies dimensions in inches and meters. For consistency and simplicity, the proposal would convert the specified dimensions to feet. Also, the term “employee” would be replaced with “personnel” because more than one employee may work on the work platform.

#### Subsection (b)(2)

The existing text requires that the platform be secured to the forks or mast. The amended text would clarify that the platform does not need to be secured if it is attached to the boom. This amendment is necessary because some models of lift trucks are equipped with platforms that attach directly to the boom. Where platforms are not attached to the boom, the proposal would specify that the base of the platform must be secured to the forks or to the base of the fork carriage. This amendment is necessary to ensure the platform is secured in a manner that prevents tipping, slipping or falling.

#### Subsection (b)(3)

The existing text requires that the platform meet the guardrail and toeboard requirements of Section 3210. The proposal would add an exemption to the existing requirement. The exemption is derived from the text of existing subsection (b). This amendment is necessary to clarify that the employer is exempt from the requirement for guardrails if the employer complies with the conditions of the exemption.

#### Subsection (c)

Existing subsection (a)(6) would be renumbered as subsection (c), and the existing text would be amended to replace the term “employee” with “personnel,” delete unnecessary language and correct a misspelling. These editorial changes are necessary for clarity.

#### Subsections (d) and (e)

Existing subsections (c) and (d) would be renumbered as (d) and (e) respectively. This amendment is necessary to maintain the sequential numbering of the subsections.

#### Subsections (f) and (g)

Existing subsections (e) and (f) would be renumbered as (f) and (g) respectively. This amendment is necessary to maintain the sequential numbering of the subsections. The proposal would replace the term “elevatable” with “that elevate” or “elevating,” and would add the term “upper controls” in parentheses after the phrase “controls that elevate with the lifting carriage or forks.” These editorial changes are necessary to improve clarity by using common terms.

#### Subsections (h) and (i)

Existing subsections (g) and (h) would be renumbered as (h) and (i) respectively. This amendment is necessary to maintain the sequential numbering of the subsections. Proposed subsection (h) would replace the “or,” following “cranes,” with “and.” This amendment is necessary to require that all moving or motorized equipment, including bridge cranes, which

could overrun or otherwise injure the elevated worker, is shut down or locked out. Also, the term “Employees” would be replaced with “Personnel” because one or more employees may work on the work platform.

#### Subsection (j)

Existing subsection (i) would be renumbered as (j). This amendment is necessary to maintain sequential numbering of the subsections. The existing text provides that before lifting personnel the lift truck operator shall be instructed to follow the rules listed in subsections (1) through (9). The proposal would delete the subsection title and replace the requirement to instruct the operator on the listed operating rules with a requirement that the operator comply with the provisions listed in subsections (j)(1) through (j)(7). This amendment is necessary to make compliance with the operating rules mandatory.

#### Subsection (j)(1)

The existing text provides that a securely attached platform be used. The proposal would add the word “work” before the word “platform.” This amendment is necessary for clarity.

#### Subsection (j)(3)

The existing text provides that the mast be vertical and not tilted forward or rearward. Because boom-type lift trucks do not have masts, the proposal would add text to clarify that this provision only applies if the lift truck is equipped with a mast.

#### Subsection (j)(4)

The existing text provides that the truck be placed in neutral and the parking brake set. The proposal would add text to clarify that this provision only applies when the lift truck is stationary. The purpose of this amendment is to avoid conflict with proposed subsections (j)(7) and (k)(5)(C) which allow minor movement of the lift truck. This amendment is necessary to require that lift trucks be placed in neutral with the parking brake set except when making minor movement of the lift truck as permitted in subsections (j)(7) and (k)(5)(C).

#### Subsection (j)(5)

The existing text states to lift and lower smoothly and with caution. For clarity, the proposal would add the word “personnel” after “lower.”

#### Subsection (j)(6)

The existing text says to watch for overhead obstructions. The proposal would provide that the operator make sure the path of the work platform travel is clear of hazards such as projections, overhead obstructions, and electrical wires. This amendment is necessary to clarify that it is the lift truck operator’s responsibility to ensure that there are no physical or electrical hazards in the path of the work platform.

#### Subsections (j)(7) and (j)(8)

Existing subsection (i)(7) instructs the operator to keep hands and feet clear of controls other than those in use. The proposal would delete this provision. This amendment is necessary to provide employers relief from a vague provision. For instance, the provision is vague as to when

a control is “in use.” Existing subsection (i)(8) would be renumbered as (j)(7). The existing provision prohibits travel with personnel on the work platform other than to make minor movements for final positioning of the platform. The proposal would add an exception to this provision to permit minor movement of a variable reach rough-terrain lift truck used for construction operations when positioning the platform along a straight line where the path of movement is free from excavations, holes, obstructions and debris. The exception is necessary to allow employees on work platforms to perform construction activities such as nailing or installing materials on the side of a residential building without having to get on and off the work platform, so long as the requirements of the exception are met.

#### Existing Subsection (i)(9)

The existing provision says never to sit, climb or stand on the platform guardrails or use planks, ladders or other devices to gain elevation. The proposal would delete this subsection. This amendment is necessary to avoid duplication with proposed subsection (i) which is substantively the same.

#### Subsection (k)

New subsection (k) would provide that where a variable reach lift truck is used to elevate personnel, the operation shall comply with the conditions listed under subsection (k), in addition to the requirements of subsections (a) through (j). This amendment is necessary to provide additional requirements, which apply when variable reach lift trucks are used to elevate personnel, to address hazards such as lift truck tip-over and employee fall hazards, which are not adequately addressed by subsections (a) through (j).

#### Subsection (k)(1)

New subsection (k)(1) would provide that if a load chart is provided for elevating personnel, then the work platform shall be loaded and positioned within the limitations on the load chart. This amendment is necessary to prevent the lift truck from tipping due to the work platform being loaded or positioned beyond the designed lifting capability of the lift truck.

#### New subsection (k)(2)

New subsection (k)(2) would provide that if there is no load chart provided for elevating personnel, then the combined weight of the work platform, load, and personnel shall not exceed one third of the rated capacity of the rough-terrain lift truck at the load center position as indicated on the load chart for regular loads. This amendment is necessary to provide an extra margin of safety to ensure that the lift truck does not tip over as a result of the work platform being loaded or positioned beyond the designed safe lifting capacity of the lift truck.

#### New subsection (k)(3)

New subsection (k)(3) would provide that: 1) the rough-terrain lift truck be placed on firm footing; 2) when used, outriggers or stabilizers be placed on a solid surface; and, 3) if necessary, pads or cribbing be used to provide a firm footing. This provision is necessary to prevent a lift truck from tipping over when the boom is extended.

New subsection (k)(4)

New subsection (k)(4) would provide that each person on a work platform supported by a variable reach rough-terrain lift truck use a personal fall restraint system or positioning device system as defined in GISO Section 3207 and that the system be used in accordance with the requirements of Section 1670 of the Construction Safety Orders (CSO). This amendment is necessary to prevent injury to employees on the work platform who are exposed to a fall hazard due to the lift truck boom shifting abruptly or unexpectedly. The provision would restrict the allowable types of fall protection systems to either a personal fall restraint system or a positioning device. The restriction is necessary to limit the free fall distance from the work platform to two feet by prohibiting the use of fall arrest systems with longer allowable free fall distances which present a greater risk of injury to employees. The reference to the definitions in Section 3207 is necessary for consistency and clarity. The reference to Section 1670 of the CSO is necessary to include the provisions of that standard which pertain to the design, approval, inspection, anchoring, rigging, and use of personal fall restraint systems and positioning devices.

New subsection (k)(4)(A)

New subsection (k)(4)(A) would provide that a lanyard be attached to each person's harness or safety belt and to an anchorage provided on the work platform. This provision is necessary to ensure that each person on the elevated work platform is wearing a harness or safety belt that is attached to the anchorage point on the work platform.

New subsection (k)(4)(B)

New subsection (k)(4)(B) provides that anchorages shall be capable of supporting the greater of 3000 pounds or twice the intended load, and each person's lanyard shall be attached to an approved anchorage point. This provision is necessary to ensure that an anchorage point is capable of supporting the load placed on the anchorage when an employee using a positioning device free falls two feet. Also, this provision is necessary to prevent more than one employee from attaching to a single lanyard.

New subsection (k)(4)(C)

New subsection (k)(4)(C) provides that where a positioning device system is used, the combination of anchorage location and lanyard length shall be arranged so that workers cannot fall more than two feet from the work platform. This provision is necessary to be consistent with the requirements of Section 1670 and to prevent fall arresting forces from injuring an employee or exceeding the capacity of the anchorage or fall protection system.

New subsection (k)(4)(D)

New subsection (k)(4)(D) provides that where personal fall restraint systems are used, the combination of anchorage location and lanyard length shall be arranged to allow the movement of employees only as far as the sides of the work platform. This provision is necessary to be consistent with the requirements of Section 1670 and to prevent fall arresting forces from injuring an employee or exceeding the capacity of the anchorage or fall protection system.

New subsection (k)(5)

New subsection (k)(5) provides that when elevating personnel with a variable reach rough-terrain lift truck, the operation shall comply with the provisions listed in subsections (k)(5)(A) through (k)(5)(D). This provision is necessary to address hazards associated with variable reach rough-terrain lift trucks that are not present when using other types of lift trucks and not addressed in subsection (j).

New subsection (k)(5)(A)

New subsection (k)(5)(A) provides that the platform shall be maintained at level throughout the personnel lifting operation. This provision will, in effect, require that the angle between the boom and the platform be adjusted as the boom is raised or lowered so that the work platform remains level as the boom angle changes. The provision is necessary to minimize the hazard of falling for persons on the platform.

New subsection (k)(5)(B)

New subsection (k)(5)(B) provides that elevated personnel be alerted before moving the platform and that the platform then be moved smoothly and with caution. This provision is necessary to prevent a sudden boom movement which could result in personnel being injured by falls or other accidents.

New subsection (k)(5)(C)

New subsection (k)(5)(C) and its exception would prohibit traveling with personnel on the work platform except for the minor movement of a variable-reach lift truck used for construction operations when positioning the platform along a straight line where the path of movement is free from excavations, holes, obstructions and debris. The prohibition on traveling with personnel on the work platform is necessary to prevent the lift truck from tipping while traveling with an elevated load and to prevent injury to personnel on the work platform from sudden movement of the platform. The exception is necessary to allow employees on work platforms to perform construction activities, such as nailing or installing materials on the side of a residential building, where the travel is reasonably expected to be safe, so long as the requirements of the exception are met.

New subsection (k)(5)(D)

New subsection (k)(5)(D) would provide that, when operating on a side slope, the lift truck be leveled before elevating personnel. This provision is necessary to prevent the center of gravity of the lift truck and load from shifting towards the downhill side of the lift truck and causing the lift truck to tip over.

DOCUMENTS RELIED UPON

1. *ANSI/ITSDF B56.1 – 2005, Safety Standard for Low Lift and High Lift Trucks*, American National Standards Institute/Industrial Truck Standards Development Foundation, <http://www.itsdf.org/pB56.asp>.

2. *ANSI/ITSDF B56.6 – 2005, Safety Standard for Rough Terrain Forklift Trucks*, American National Standards Institute/Industrial Truck Standards Development Foundation, <http://www.itsdf.org/pB56.asp>.
3. Memorandum from the Division of Occupational Safety and Health dated June 21, 2007, to the Occupational Safety and Health Standards Board with attached Request for New, or Change in Existing, Safety Order, (Form 9).

These documents are available for review Monday through Friday from 8:00 a.m. to 4:30 p.m. at the Standards Board Office located at 2520 Venture Oaks Way, Suite 350, Sacramento, California.

#### REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

#### SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment.

#### COST ESTIMATES OF PROPOSED ACTION

##### Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action.

##### Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

##### Impact on Businesses

The Board has made a determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

##### Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

#### Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

#### Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under “Determination of Mandate.”

#### Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies.

### DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standard does not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because this standard does not constitute a “new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution.”

The California Supreme Court has established that a “program” within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

This proposed standard does not require local agencies to carry out the governmental function of providing services to the public. Rather, the standard requires local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed standard does not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

The proposed standard does not impose unique requirements on local governments. All employers - state, local and private - will be required to comply with the prescribed standard.

### EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendment may affect small businesses. However, no economic impact is anticipated.



### ASSESSMENT

The adoption of the proposed amendments to this standard will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

### ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.